

Amendments to the Claims: This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1. (Currently Amended) A method of improving the surface smoothness of a polymeric substrate, comprising disposing a coating layer on a surface of the polymeric substrate by a process comprising applying to a surface of the polymeric substrate a coating composition comprising:

(a) from about 5 to about 50 weight percent solids, the solids comprising from about 10 to about 70 weight percent silica and from about 90 to about 30 weight percent of a partially polymerized organic silanol of the general formula RSi(OH)_3 , wherein R is selected from methyl and up to about 40% of the R groups are a group selected from the group consisting of vinyl, phenyl, gamma-glycidoxypentyl, and gamma-methacryloxypropyl, and

(b) from about 95 to about 50 weight percent solvent, the solvent comprising from about 10 to about 90 weight percent water and from about 90 to about 10 weight percent lower aliphatic alcohol,

wherein the coating composition has a pH of from about 3.0 to about 8.0 and wherein a surface of said coating layer exhibits an Ra value of less than 0.6 nm, and/or an Rq value of less than 0.8 nm.

2. (Previously Presented) The method according to claim 1 wherein the pH of the coating composition is in the range 3.0 to 6.5.
3. (Previously Presented) The method according to claim 1 wherein the pH of the coating composition is about 6.0.
4. (Previously Presented) The method according to claim 1 wherein said polymeric substrate is a polyester film.

5. (Previously Presented) The method according to claim 4 wherein said polymeric substrate is a poly(ethylene naphthalate) or poly(ethylene terephthalate) film.
6. (Previously Presented) The method according to claim 4 wherein the polyester is derived from 2,6-naphthalenedicarboxylic acid.
7. (Previously Presented) The method according to claim 6 wherein the polyester is poly(ethylene naphthalate) having an intrinsic viscosity of 0.5 – 1.5.
8. (Previously Presented) The method according to claim 1 wherein said polymeric substrate is a heat-stabilised, heat-set, oriented film.
9. (Previously Presented) The method according to claim 1 wherein said polymeric substrate has a shrinkage at 30 mins at 230°C of less than 1%.
10. (Previously Presented) The method according to claim 1 wherein said polymeric substrate has a residual dimensional change ΔL_r measured at 25°C before and after heating the substrate from 8°C to 200°C and then cooling to 8°C, of less than 0.75% of the original dimension.
11. (Previously Presented) The method according to claim 1 wherein said polymeric substrate is a heat-stabilised, heat-set, oriented film comprising poly(ethylene naphthalate) film having a coefficient of linear thermal expansion (CLTE) within the temperature range from -40 °C to +100°C of less than $40 \times 10^{-6}/^{\circ}\text{C}$.
12. (Previously Presented) The method according to claim 1 wherein said substrate has a % of scattered visible light (haze) of <1.5%.
13. (Previously Presented) The method according to claim 1 wherein said substrate is a heat-stabilised biaxially oriented film.
14. (Previously Presented) The method according to claim 1 wherein the substrate is part of an electronic or opto-electronic device containing a conjugated conductive polymer.
15. (Previously Presented) The method according to claim 14 wherein said electronic or opto-electronic device is an electroluminescent display device.

16. (Previously Presented) The method according to claim 14 wherein said electronic or opto-electronic device is an organic light emitting display (OLED) device.
17. (Previously Presented) A composite film comprising a heat-stabilised, heat-set, oriented polyester substrate and a coating layer, wherein the coating layer is derived from the coating composition recited in claim 1, and wherein a surface of said coating layer exhibits an Ra value of less than 0.6 nm, and/or an Rq value of less than 0.8 nm.
18. (Previously Presented) The composite film according to claim 17 wherein said polyester substrate is a poly(ethylene naphthalate) film.
19. (Previously Presented) The composite film according to claim 17 wherein said polyester substrate exhibits one or more of the following characteristics:
 - (i) a shrinkage at 30 mins at 230°C of less than 1%; and/or
 - (ii) a residual dimensional change ΔL_r measured at 25°C before and after heating the polyester substrate from 8°C to 200°C and then cooling to 8°C, of less than 0.75% of the original dimension; and/or
 - (iii) a coefficient of linear thermal expansion (CLTE) within the temperature range from -40°C to +100°C of less than $40 \times 10^{-6}/^{\circ}\text{C}$; and/or
 - (iv) a % of scattered visible light (haze) of <1.5%.
20. (Withdrawn) A composite film comprising a heat-stabilised, heat-set, oriented poly(ethylene naphthalate) substrate, and a coating layer; wherein said substrate exhibits one or more of:
 - (i) a shrinkage at 30 mins at 230°C of less than 1%; and/or
 - (ii) a residual dimensional change ΔL_r measured at 25°C before and after heating the substrate from 8°C to 200°C and then cooling to 8°C, of less than 0.75% of the original dimension; and/or

- (iii) a coefficient of linear thermal expansion (CLTE) within the temperature range from -40°C to +100°C of less than $40 \times 10^{-6}/^{\circ}\text{C}$;
- and wherein the surface of said coating layer exhibits an Ra value of less than 0.6 nm, and/or an Rq value of less than 0.8 nm.
21. (Withdrawn) The composite film according to claim 17 further comprising a barrier layer.
22. (Withdrawn) The composite film according to claim 21 which exhibits a water vapour transmission rate of less than $10^{-6} \text{ g/m}^2/\text{day}$ and/or an oxygen transmission rate of less than $10^{-5} \text{ mL/m}^2/\text{day}$.
23. (Withdrawn) A method of manufacture of a coated polymeric film which comprises the steps of:
- (i) forming a substrate layer comprising poly(ethylene naphthalate);
 - (ii) stretching the substrate layer in at least one direction;
 - (iii) heat-setting the substrate layer under dimensional restraint at a tension in the range of about 19 to about 75 kg/m of film width, at a temperature above the glass transition temperature of the poly(ethylene naphthalate) but below the melting temperature thereof;
 - (iv) heat-stabilising the substrate layer under a tension of less than 5 kg/m of film width, and at a temperature above the glass transition temperature of the poly(ethylene naphthalate) but below the melting temperature thereof; and
 - (v) disposing a coating layer on a surface of the substrate layer by a process comprising applying a planarising coating composition thereto such that a surface of said coating layer exhibits an Ra value of less than 0.6 nm, and/or an Rq value of less than 0.8 nm.
24. (Withdrawn) A method of manufacture of an electronic or opto-electronic device containing a conjugated conductive polymer and a substrate, said method comprising the steps of:
- (i) forming a substrate layer comprising poly(ethylene naphthalate);

- (ii) stretching the substrate layer in at least one direction;
 - (iii) heat-setting the substrate layer under dimensional restraint at a tension in the range of about 19 to about 75 kg/m of film width, at a temperature above the glass transition temperature of the poly(ethylene naphthalate) but below the melting temperature thereof;
 - (iv) heat-stabilising the substrate layer under a tension of less than 5 kg/m, and at a temperature above the glass transition temperature of the poly(ethylene naphthalate) but below the melting temperature thereof;
 - (v) disposing a coating layer on a surface of the substrate layer by a process comprising applying a planarising coating composition thereto such that a surface of said coating layer exhibits an Ra value of less than 0.6 nm, and/or an Rq value of less than 0.8 nm; and
 - (vi) providing the coated, heat-stabilised, heat-set, stretched substrate layer as a substrate in the device.
25. (Withdrawn) The method according to claim 24 further comprising providing on a surface of the coated substrate a barrier layer.
26. (Withdrawn) The method according to claim 25 wherein the composite film comprising said coated substrate and barrier layer exhibits a water vapour transmission rate of less than 10^{-6} g/m²/day and/or an oxygen transmission rate of less than 10^{-5} mL/m²/day.
27. (Withdrawn) The composite film according to claim 20 further comprising a barrier layer.